

Surgical management of double head pterygium by novel approach

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Abstract

Purpose: To describe a new technique of conjunctival autografting for double head pterygia and to evaluate its post-operative outcome. **Method:** Retrospective analysis of eight eyes of surgically managed double head pterygium was done. The conjunctival autograft from Nasal and Temporal pterygium in same eye was taken from the body of pterygium on either side and the harvested conjunctival autograft from the body of the nasal pterygium was transferred to temporal pterygium and vice versa without losing limbal orientation. The patients were followed up for recurrence of lesion and incidence of complications. **Result:** Partial recurrence was noted in one male on temporal side. **Conclusion:** Transferring conjunctival autograft harvested from bodies of nasal and temporal pterygia in the same eye to utilize for autografting in temporal and nasal pterygium in double head pterygium is minimally invasive and useful procedure for double headed pterygium.

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INTRODUCTION

India appears to be a part of pterygium belt. Conjunctival autograft are reportedly safe and excision of double head pterygium leave large conjunctival defects. We describe a new technique of utilizing conjunctival autografts from the body of double head pterygium itself to tackle these defects.

METHODS AND MATERIALS

Case records of 8 eyes of 8 Patients, 6 Males and 2 Females who underwent Pterygium excision with conjunctival autograft from Jan-2013 to July-2014 were analysed retrospectively. Indication for surgery was purely cosmetic. Depending upon the extent of corneal involvement, pterygium was graded as following.^[1]

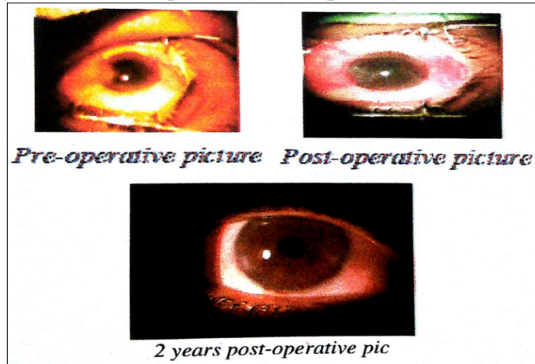
Grade I- Crossing the Limbus.

Grade II- Midway between Limbus and Pupil

Surgical procedure

Peribulbar anaesthesia was given with 5cc of 3:2 mixture of injection xylocaine 2% and injection bupivacaine 0.5% with 150 IU of hyaluronidase. Painting and draping was done. Wire speculum was inserted. Superior rectus bridal suture was taken with Silk 4-0. Nasal pterygium was first operated. Conjunctival incision was taken just inside limbus over pterygium. It was gently extended over the breadth of pterygium. Tenon's tissue attached to conjunctiva was separated from below. Tenon's tissue was excised almost upto insertion of medial rectus horizontally and upto breadth of pterygium vertically. Head of pterygium was then excised. Same procedure was followed on temporal pterygium but tenon's was excised upto 5.5mm temporally and over breadth of pterygium. Conjunctiva over nasal and temporal pterygium was cut to fit the planned conjunctival defect on the other side. Nasal conjunctival graft was then prepared and kept on the same bed. Similar procedure was done on temporal conjunctival graft. Then the nasal sided conjunctival graft was transferred to temporal defect side with vice versa procedure was followed. The grafts were attached using biological glue Reliseal maintaining limbal orientation of grafts on either side. The eye was patched. This surgical method to our

knowledge is not been reported in the world. Post operatively topical dexamethasone and gatifloxacin eye drops were given every two hourly for 1 week and tapered over six weeks. Topical 1% carboxy methylcellulose drops were use topically for six weeks.



RESULT

6 (75%) out of 8 patients were males and the average age group was 45±15yrs. 2 (25%) females with average age group of 50±15yrs. The mean follow up 17.7±7months(12 to 27 months).

Recurrence was noted in one male in operated eye on temporal side. (Recurrence was defined as fibrovascular tissue crossing the corneo- sclera limbus onto clear cornea.)

One case presented with graft bleed and one presented with graft oedema.

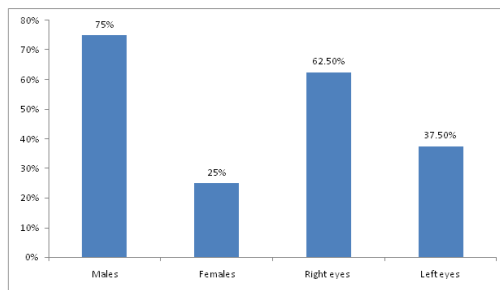


Figure 1

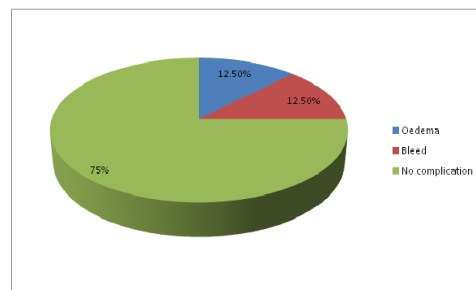


Figure 2

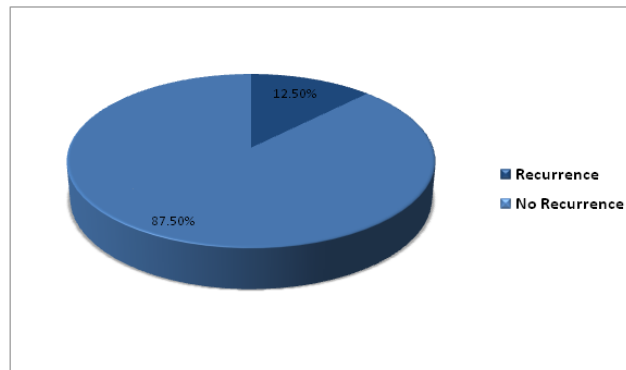


Figure 3

Legend:

Figure 1: Demography of population and laterality of Pterygium; Figure 2: Incidence of post operative complications noted;

Figure 3: Showing Surgical outcome

DISCUSSION

Numerous surgical procedures have been recommended for pterygium excision including bare sclera^[5] or radiation^[6] Out of all techniques for managing primary and recurrent pterygium, conjunctival autografts have shown successful results and are widely accepted in management of pterygium.^{[2]-[5]} Concerns have been raised in managing large conjunctival defects created in double head pterygium for which split conjunctival graft have

been found to be effective in these cases. The above described technique managed this problem effectively. Sparing of conjunctiva for future glaucoma surgery is the most important advantage of this technique^[1]. This technique is difficult to undertake in scarred conjunctiva. In summary, transfer of conjunctiva from body of nasal to temporal pterygium and temporal to nasal pterygium appears to be successful technique to manage double head pterygium.

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